

Water-Data Report 2008

02106500 BLACK RIVER NEAR TOMAHAWK, NC

Cape Fear Basin
Black Subbasin

LOCATION.--Lat 34°45'18", long 78°17'19" referenced to North American Datum of 1983, Sampson County, NC, Hydrologic Unit 03030006, on left bank 30 ft upstream from bridge on North Carolina Highway 411, 0.2 mi downstream of Clear Run Swamp, and 3.8 mi northeast of Tomahawk.

DRAINAGE AREA.--676 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1723: 1955(M). WDR NC-81-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 24.61 ft above NGVD of 1929. Nonrecording gage on downstream side of bridge October 1, 1951 to June 29, 1961. Water-stage recorder was at present site at datum of 24.26 ft June 30, 1961 to September 30, 1964. Satellite telemetry at station.

REMARKS.--No estimated daily discharges. Records good. Maximum gage height for period of record from floodmarks. Minimum discharge for period of record also occurred September 14, 2007. Minimum discharge for current year also occurred on October 2-5, 21-24.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1928 reached a stage of 22.0 ft, present datum; discharge, 14,500 ft³/s and floods in 1945 and 1948 reached a stage of 17.6 ft, present datum; discharge, 5,420 ft³/s, from information furnished by North Carolina State Highway Commission.

02106500 BLACK RIVER NEAR TOMAHAWK, NC—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	14	446	67	994	342	1,350	573	628	216	19	337	767
2	13	307	68	976	427	1,180	618	567	242	17	402	878
3	13	247	66	886	538	1,020	659	522	223	16	371	1,020
4	13	206	68	695	559	874	806	478	175	15	295	1,110
5	15	170	69	557	538	916	1,030	460	148	14	241	1,070
6	19	149	68	485	503	1,200	2,170	597	126	15	218	1,280
7	26	129	66	442	473	1,430	2,600	569	109	93	199	1,670
8	30	111	62	410	447	1,770	2,920	504	93	171	225	1,980
9	31	101	73	378	410	2,130	3,250	462	82	131	265	2,310
10	32	94	77	354	383	2,320	3,330	422	73	96	212	2,780
11	28	89	73	339	348	2,400	3,160	390	65	80	187	3,360
12	25	86	69	324	319	2,380	2,830	408	57	75	386	3,850
13	22	80	67	309	386	2,170	2,390	386	53	82	589	3,900
14	20	77	67	299	731	1,820	1,930	343	57	74	764	3,490
15	18	76	69	276	868	1,490	1,570	313	52	73	849	2,890
16	17	81	89	259	825	1,310	1,310	299	57	74	829	2,360
17	16	83	254	254	693	1,190	1,100	293	63	62	913	2,000
18	16	77	383	291	762	1,080	919	277	53	55	1,040	1,880
19	15	75	382	337	1,190	966	761	265	44	60	1,090	1,680
20	15	76	320	531	1,500	902	656	263	38	68	1,030	1,430
21	14	74	280	732	1,990	881	626	316	35	62	903	1,220
22	14	70	313	720	2,690	884	670	304	35	49	791	1,040
23	14	68	391	640	2,870	891	847	257	34	45	714	897
24	14	69	397	593	2,680	861	909	226	33	179	657	764
25	21	69	391	551	2,420	784	770	210	30	218	602	660
26	137	67	453	495	2,230	677	603	198	27	137	549	849
27	538	68	843	452	2,030	596	520	179	25	110	491	1,160
28	779	73	1,020	419	1,790	546	648	165	24	123	484	1,330
29	874	73	1,100	388	1,550	506	774	197	22	147	520	1,410
30	903	69	1,100	364	---	471	708	262	21	177	586	1,450
31	754	---	1,030	350	---	492	---	245	---	248	682	---
Total	4,460	3,460	9,775	15,100	32,492	37,487	41,657	11,005	2,312	2,785	17,421	52,485
Mean	144	115	315	487	1,120	1,209	1,389	355	77.1	89.8	562	1,750
Max	903	446	1,100	994	2,870	2,400	3,330	628	242	248	1,090	3,900
Min	13	67	62	254	319	471	520	165	21	14	187	660
Cfs/m	0.21	0.17	0.47	0.72	1.66	1.79	2.05	0.53	0.11	0.13	0.83	2.59
In.	0.25	0.19	0.54	0.83	1.79	2.06	2.29	0.61	0.13	0.15	0.96	2.89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	511	525	722	1,106	1,280	1,370	1,040	532	468	512	687	737
Max	4,421	2,511	2,164	2,903	4,212	3,410	3,070	1,687	3,089	3,949	2,810	5,812
(WY)	(2000)	(2007)	(1993)	(1993)	(1998)	(1983)	(1973)	(1978)	(1995)	(2003)	(1974)	(1999)
Min	29.6	57.1	238	287	448	423	225	117	66.9	64.8	25.2	13.4
(WY)	(1955)	(1974)	(1989)	(1986)	(1989)	(2006)	(1981)	(2001)	(2007)	(2007)	(1954)	(1954)

02106500 BLACK RIVER NEAR TOMAHAWK, NC—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1952 - 2008	
Annual total	144,145.1		230,439			
Annual mean	395		630		788	
Highest annual mean					1,300	1960
Lowest annual mean					327	1986
Highest daily mean	2,900	Jan 1	3,900	Sep 13	27,300	Sep 18, 1999
Lowest daily mean	7.9	Sep 11	13	Oct 2	7.9	Sep 11, 2007
Annual seven-day minimum	8.4	Sep 8	15	Oct 18	8.4	Sep 8, 2007
Maximum peak flow			3,970	Sep 12	28,500	Sep 18, 1999
Maximum peak stage			15.62	Sep 12	^a 27.14	Sep 18, 1999
Instantaneous low flow			^a 13	Oct 1	^a 7.5	Sep 11, 2007
Annual runoff (cfs)	0.584		0.931		1.17	
Annual runoff (inches)	7.93		12.68		15.84	
10 percent exceeds	1,230		1,670		1,760	
50 percent exceeds	121		384		510	
90 percent exceeds	17		32		103	

^aSee Remarks.